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EXAMINER

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

1. This is a FINAL Office Action in response to Applicant's reply of August 15, 2011, which was in reply to a non-final Office Action mailed on February 16, 2011. No Claims have been newly-amended, added, or canceled.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno (JP 2001-191361 A, hereinafter Mizuno).

4. Regarding Claims 18 and 24-27, Mizuno teaches a method of making a vehicle door panel with a formed skin that partially provides an "A" surface of the door that may be interfaced by a user (as per [0002] and below), the method comprising, as per the Figures:

- providing a first mold section (Item 10), a second mold section (Item 20), a first projection extending from the first mold section toward the second mold section (Item 13), and a first shut-off member opposite the first projection and movable between a first position and a second position (Item 31);

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- providing a first cavity defined by a first portion of the first mold section, the first projection, a first portion of the second mold section, and the first shut-off member when in the first position (the cavity in which Item 53 is present in Figure 9);
- positioning a formed skin having a first edge and a second edge in the first cavity proximate the first mold section so that the first edge of the formed skin extends outward past the first projection toward the second section such that a free end faces the first shut-off member (characterized as such since Figure 7 shows the formed skin 8 to cross over at least a portion of the area delineated of the projection, with a portion of the shut-off member remaining in front of the face of the formed skin);
- injecting a first resin into the first cavity and bonding to the formed skin (as per the positioning of resin 53 in Figure 9);
- moving the first shut-off member from the first position to the second position to provide a second cavity defined by a second portion of the first mold section, a second portion of the second mold section, the first edge of the formed skin that is extended past the first projection, the first resin, and the first shut-off member when in the second position (the cavity in which Item 55 is present in Figure 9).
- injecting a second resin into the second cavity while the first edge of the formed skin remains extended past the first projection and bonding the second resin to the at least partially-solidified first resin and the first edge of the formed skin (as per the path of resin 55 in Figure 9 and the finished product shown in Figure 11 and as per

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[0031], which instructs that Item 2 is sufficiently rigid to support skin 8 when resin 55 bonds).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 19-20, 22, and 28-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno in view of Hiraiwa et al. (US 2002/0017360 A1, hereinafter Hiraiwa).

9. Regarding Claims 19-20, 22, and 28-29, Mizuno teaches the general method as discussed above, but is silent on further possible aspects of the characteristics and placement of the formed skin.

In analogous art pertaining to molding, Hiraiwa teaches that desired car door product feel and aesthetics can be accomplished by making the formed skin a flexible synthetic sheet and a compressible foamed layer coupled to at least a portion of the flexible sheet (as per [0032] and [0044]) that can be held in place by a first shut-off member comprising a recess to receive the first edge of the formed skin and opposing a first projection (as per Figure 10), and by making said formed skin occupy only a subsection of a cavity where resin is injected such that the injection of the resin in the cavity results in the door having the skin visible in one part, and the resin visible in a second part (as per Figure 4, which further discloses that this outer surface skin/resin demarcation is provided for by a second projection that has the second edge of the formed skin extended thereby as claimed).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to apply to Mizuno a composite formed skin held in place by a shut-off member to form a door panel with a partial skin and partial resin exterior as per Hiraiwa for the benefit of achieving desirable product feel and aesthetics.

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10. Regarding Claims 30-34, the hypothetical combination is silent on the relationship between the two injected resins. Thus – given that when injecting a resin in two different places, each of the two portions of resin used must be either the same resin or a different resin, and either the same color or a different color, thereby forming a set of limited finite and predictable injection options – a skilled artisan would have found it obvious to try all four of the limited options with respect to resin identity and resin color.

11. Claim 21 (as applied to Claim 20 above) and Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno and Hiraiwa, and further in view of Ae et al. (JP 2002-187166 A, hereinafter Ae).

12. Regarding Claim 21, the previous combination teaches the general method as applied above, but does not teach injecting a third resin into a third cavity defined by a third portion of the first mold section, third portion of the second section, a portion of the first resin disposed between the first mold section and the second mold section, a second shut-off member that is arranged in a closed position opposite a third projection.

In analogous art pertaining to vehicle trim manufacturing, Ae teaches adding a third part to a two-part trim molding (as in Figure 6, which comprises a) for the benefit of providing an integral multi-color article (as per the Abstract).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to apply Ae to the previous combination by essentially

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duplicating the first projection, first shut-off member, and second cavity into a third projection, second shut-off member, and third cavity on the opposite side of the mold and injecting a third resin into the third cavity that would bond to the first resin for the benefit of providing an integral multi-color trim part.

13. Regarding Claims 35 and 36, the hypothetical combination as applied above to Claims 18-21 meets all the limitations of Claim 35, since Claim 35 is essentially Claim 21 rewritten as an Independent Claim with intermediary claims included therein and Claim 36 is identical to Claim 19 except for its dependency.

14. Regarding Claim 37, the previous combination remains as applied above and Hiraiwa, in order to allow for the door user interface containing a partial skin portion and partial resin portion as discussed above. further teaches in Figures 15-17 (wherein for the purposes of the discussion below, the top of each respective figure coincides with the respective Fig. 15, Fig. 16, and Fig. 17 text on the drawing sheet) that a second member capable of acting as shut-off member comprises

- a forward surface (the protruding portion 36a as best shown in Figure 16),
- a first side surface (the bottom surface of the member),
- a second side surface that shares an edge with the forward surface (the top surface of the member),
- and an angled surface that extends between the forward surface and the first side surface (the flat-angled portion between 36a and the bottom surface);



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- and wherein, if that member were to be used as the second shut-off member (in conjunction with a protrusion like Item 23) for the hypothetical combination as applied to Claim 35 above, the step of injecting a third resin would comprise forming an angled recess in the molded article having an upper surface provided by the angled surface of the second shut-off member and provided at a sufficiently flat angle relative to vertical by the angled surface of the shut-off member to obscure the interface between the first resin and the third resin from an occupant of the vehicle interior.

A skilled artisan would be motivated to use the shut-off member from Hirwaiwa's Figures 15 and 16 as claimed in the hypothetical combination in order to achieve (as per Hiraiwa in the Abstract) making it so "each boundary line of the different portions is hidden in a groove or valley provided in the substrate of the trim component." Thus, the skilled artisan would be motivated to use the shut-off member from Hiraiwa's Figures 15 and 16 to better hide the boundary between the two differently-colored resin portions.

15. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno and Hiraiwa as applied to Claim 18 above, and further in view of Dailey et al. (US 6,248,200, hereinafter Daile).

16. Regarding Claim 23, the previous combination teaches the general method as applied above, but does not teach that the formed skin comprises a flexible sheet and a compressible material coupled to a portion of the flexible sheet, and wherein the step of

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injecting the first resin into the first cavity and bonding to the formed skin comprises injecting the first resin into the first cavity and bonding to the flexible sheet and to the compressible material to provide a first compressible region where the first resin is bonded directly to the skin and a second compressible region where the first resin is bonded directly to the compressible material.

In analogous art pertaining to vehicle trim manufacturing, Dailey teaches a formed skin comprising a flexible sheet and a compressible material coupled to a portion of the flexible sheet, and wherein a step of injecting a resin into a cavity and bonding to the formed skin comprises injecting the resin into the cavity and bonding the resin to the flexible sheet and to the compressible material to provide a first compressible region where the first resin is bonded directly to the skin and a second compressible region where the first resin is bonded directly to the compressible material for the benefit of providing a relatively soft integral arm rest pad in trim panel assembly (Column 3 Lines 16 – Column 4 Line 4).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to combine Dailey with the previous combination for the benefit of providing a relatively soft integral arm rest pad in trim panel assembly.

### ***Response to Arguments***

17. Applicant's arguments filed August 15, 2011 have been fully considered but they are not persuasive.

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18. Applicant contends that Mizuno does not teach a step of "positioning the formed skin in the first cavity proximate the first mold section between the first projection and the second projection so that the first edge of the formed skin extends outward past the first projection toward the second mold section such that a free end of the first edge faces the first shut-off member." Relying particularly on Mizuno's Figures 6a and 6b, the Examiner maintains the February 16, 2011 Office Action for the reasons described below.

With respect to whether Mizuno's formed skin has the "first edge of the formed skin extend[ing] outward past the first projection toward the second mold section," the first edge 8a (as Applicant notes in the August 15 Remarks), wraps around the projected rim 13. The Examiner finds that in order to wrap around the projected rim 13, the first skin edge 8a must be in a condition that can be considered extended "outward past the first projection toward the second mold section" since the wrapped-around first edge 8a occupies a space outward of the projected rim 13 in between the projected rim 13 and the second assembled die 20.

With respect to whether the free end of the first edge faces the first shut-off member, the Examiner notes that one definition of "faces" from the Merriam-Webster Online Dictionary is "to have the front oriented toward" while one definition of "toward" is therein is "in the direction of." Mizuno's front skin edge 8a is located in such a position that part of the first shut-off member 31 is behind the front skin edge 8a, and part of the first shut-off member 31 is in front of the front skin edge 8a. Thus, since there is a part of the first shut-off member in front of the skin edge 8a (i.e. the front of the skin edge 8a

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is oriented in the direction of the portion of first shut-off member 31 that is front of the skin edge 8a), the Examiner maintains that is reasonable to characterize Mizuno's skin edge 8a as facing the first shut-off member 31.

### ***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN OCHYLSKI whose telephone number is 571-270-7009 and whose direct fax number is 571-270-8009. The examiner can normally be reached on Monday through Thursday and every other Friday from 9:00-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Del Sole can be reached on 571-272-1130. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

rmo

/Joseph S. Del Sole/  
Supervisory Patent Examiner, Art Unit 1743